



JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR
Government of Rajasthan established
Through ACT No. 17 of 2008 as per UGC ACT 1956
NAAC Accredited University

Faculty of Education and methodology

Department of Science and Technology

Faculty Name- Jv'n Narendra Kumar Chahar (Assistant Professor)

Program- B.Tech 8thSemester

Course Name – Cryptography and Network Security

Session no.: 03

Session Name- Security Services and Mechanisms

Academic Day starts with –

- Greeting with saying '**Namaste**' by joining Hands together following by 2-3 Minutes Happy session, Celebrating birthday of any student of respective class and **National Anthem**.

Lecture starts with- quotations' answer writing

Review of previous Session – **Cryptography, Cryptanalysis and Steganography**

Topic to be discussed today- Today We will discuss about **Security Services and Mechanisms**

Lesson deliverance (ICT, Diagrams & Live Example)-

➤ Diagrams

Introduction & Brief Discussion about the Topic – **Introduction to Security Services and Mechanisms**

Security Services and Mechanisms

Security Services:

The classification of security services are as follows:

Confidentiality: Ensures that the information in a computer system and transmitted information is accessible only for reading by authorized parties.

E.g., Printing, displaying and other forms of disclosure.

Authentication: Ensures that the origin of a message or electronic document is correctly identified, with an assurance that the identity is not false.

Integrity: Ensures that only authorized parties are able to modify computer system assets and transmitted information. Modification includes writing, changing status, deleting, creating and delaying or replaying of transmitted messages.

Non repudiation: Requires that neither the sender nor the receiver of a message be able to deny the transmission.

Access control: Requires that access to information resources may be controlled by or the target system.

Availability: Requires that computer system assets be available to authorized parties when needed.

Security Mechanisms

One of the most specific security mechanisms in use is cryptographic techniques. Encryption or encryption-like transformations of information are the most common means of providing security. Some of the mechanisms are

- 1 Encipherment
- 2 Digital Signature
- 3 Access Control

Reference-

1. **Book:** William Stallings, "Cryptography & Network Security", Pearson Education, 4th Edition 2006.

QUESTIONS: -

Q1. Explain Security services.

Q2. What are the security mechanisms?

Next, we will discuss about Security attacks.

- Academic Day ends with-
National song 'Vande Mataram'